

Method for producing stable aqueous polymer dispersions based on conjugated aliphatic dienes and vinyl aromatic compounds

Abstract

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The present invention provides a process for preparing a stable aqueous copolymer dispersion by free-radically initiated aqueous emulsion polymerization of

- 10 a) from 19.9 to 80 parts by weight of conjugated aliphatic dienes  
[monomers a)],  
b) from 19.9 to 80 parts by weight of vinylaromatic compounds  
[monomers b)],  
c) from 0.1 to 10 parts by weight of ethylenically unsaturated carboxylic acids  
and/or dicarboxylic acids [monomers c)],  
15 d) from 0 to 20 parts by weight of ethylenically unsaturated carbonitriles  
[monomers d)],

and

- 20 e) from 0 to 20 parts by weight of copolymerizable compounds other than  
monomers b) [monomers e)],

the total amount of ethylenically unsaturated monomers a) to e) being 100 parts by weight, in the  
presence of water and from 0.1 to 5 parts by weight, based on the total monomer amount, of  
25 emulsifiers comprising

- f) sulfuric monoesters of ethoxylated fatty acid alcohols and/or  
g) salts of esters and monoesters of alkylpolyoxyethylenesulfosuccinates,  
30 from 15 to 85% by weight of the total emulsifiers used being added within the time taken to  
reach up to 40% of the total conversion of the monomers a) to e), and from 1 to 50% of the  
carboxylic acid groups deriving from the monomers c) being neutralized by addition of base.